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AGRICULTURAL MEMORANDUM NO 485

DRAINAGE SENSITIVITY INDEX

L P Smith

The geographical assembly into four areas (Ag Memo 478, 479, 485, 486) is not completely satisfactory.

What is basically required is knowledge of the gain to be made by improved drainage, so that assuming that the four classes of drainage are linear, then the slope of the straight line fitting the four loss values for each of the schedules gives a sensitivity index.

As it is unlikely that artificial drainage would improve a classification by more than one step, e.g. D -> C, C -> B or B -> A, this index gives the reduction of percentage losses which is theoretically possible by drainage improvement.

The table shows that the least sensitive area lies in a belt between Warwickshire and Essex, and is independent of average annual rainfall.

Improvement in yields due to earlier sowing alone, resulting from better drainage, is likely to be greatest in the north-east.

Any comments or suggestions on this paper should be referred to the author.

Meteorological Office
Bracknell
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Drainage Sensitivity Index

		Average Annual Rainfall	7 day Schedules	10 day Schedules	14 day Schedules
Stratford	(Warwick)	25	1.1	1.4	2.0
Oxford	(Oxon)	26	1.5	1.7	2.1
Worcester	(Worcs)	26	1.5	1.9	2.5
Bedford	(Beds)	23	1.3	1.8	2.7
Writtle	(Essex)	23	1.1	1.8	3.0
Aylesbury	(Bucks)	26	1.5	2.0	2.6
Horsham	(Sussex)	29	1.3	2.0	2.8
Watford	(Herts)	26	1.1	2.0	3.1
Cambridge	(Cambs)	22	1.3	1.9	3.2
Cheltenham	(Glos)	27	1.8	2.0	2.9
Wimborne	(Dorset)	34	1.5	2.2	3.1
Andover	(Hants)	29	1.3	2.0	3.6
Nottingham	(Notts)	24	1.5	2.0	3.4
Wisley	(Surrey)	26	1.3	2.1	3.6
Newport	(Salop)	26	1.1	2.4	4.1
Reading	(Berks)	25	1.6	2.4	3.9
Wellingborough	(Northants)	25	1.9	2.6	3.7
Holme	(E.R.)	26	1.7	2.5	4.3
Maidstone	(Kent)	26	2.0	2.8	4.4
Melton Mowbray	(Leics)	25	2.0	2.9	4.5
Bishops Cannings	(Wilts)	32	2.7	3.2	4.3
Cranwell	(Lincs)	24	2.4	3.5	4.7
Sandringham	(Norfolk)	27	1.9	4.1	5.8
Sprowston	(Norfolk)	25	2.5	4.7	5.7